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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/718,944	11/21/2003	Steven R. Sedlmayr	AUO1019	3586

7590 06/27/2006

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EXAMINER

PRITCHETT, JOSHUA L

ART UNIT PAPER NUMBER

2872

DATE MAILED: 06/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/718,944

Applicant(s)

SEDLMAYR, STEVEN R.

Examiner

Joshua L. Pritchett

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) See Continuation Sheet is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Continuation of Disposition of Claims: Claims pending in the application are 176-178,180-182,185-188,190-192,194-196,199-202,204-207,209-211,214-220,222-224,227-230 and 232.

Continuation of Disposition of Claims: Claims rejected are 176-178,180-182,185-188,190-192,194-196,199-202,204-207,209-211,214-220,222-224,227-230 and 232.

DETAILED ACTION

This action is in response to Amendment filed April 25, 2006. Claims 176, 180-182, 185-188, 190, 194-196, 199-202, 205 and 217 have been amended as requested by the applicant.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 176, 178, 181, 182, 185, 187, 188, 190, 192, 195, 196, 199, 201, 202, 204, 205, 207, 210, 211, 214, 216-218, 220, 223, 224, 227, 229, 230 and 232 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muro (JP 63236494) in view of Konno (US 4,497,015).

Regarding 176, 185, 190, 199, 204-205, 214, 217, 227 and 232, Muro et al. disclose in figs. 3-4 a system and method of producing a collinear beam of electromagnetic energy/light having two constituent parts, comprising (a) means (10) for providing a primary beam of electromagnetic energy/light having a predetermined range of wavelengths and randomly changing orientations of a chosen component of electromagnetic wave field vectors, which includes producing an initial beam of ultraviolet (abstract, a halogen lamp inherently has

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ultraviolet wavelengths; (b) means (13) for resolving the primary beam of electromagnetic energy/light into a primary first resolved beam (travels toward 15) of electromagnetic energy/light having substantially a first selected predetermined orientation of a chosen component of the electromagnetic wave field vectors (S) and a primary second resolved beam (travels toward 19', 20') of electromagnetic energy having substantially a second selected predetermined orientation of a chosen component of the electromagnetic wave field vectors (P); (c) means (19', 20', 19" 20") for separating each of the primary resolved beams of electromagnetic energy/light into two or more separate beams of electromagnetic energy/light, each of the separate beams of electromagnetic energy/light having a selected predetermined orientation of a chosen component of electromagnetic wave field vectors (P or S); (d) adjusting at least one of the two or more collimated separate beams of electromagnetic energy by removing at least a predetermined portion of electromagnetic energy from the at least one beam at a beam stop (20' and 19') the beamsplitters of Muro (19' and 20') will block a portion of the light incident the valve outside the aperture of the beamsplitter, thus the beamsplitter functions as a beam stop for errant light; (e) means (171', 172' (not shown in fig. 4), 173', 171" 172' ' (not shown in fig. 4), 173' ') for altering the selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of a plurality of portions of each of the separate beams of electromagnetic energy/light by passing each of the separate beams of electromagnetic energy/light through a respective one of a plurality of altering means whereby the selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of the plurality of portions of each of the separate beams of electromagnetic energy/light is altered in response to a stimulus means by applying a signal means to the stimulus

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means in a predetermined manner as each of the separate beams of electromagnetic energy/light passes through the respective one of the plurality of means for altering the selected predetermined orientation of the chosen component of the electromagnetic wave field vectors (Abstract, see description of LC panels; (f) (i) means (21', 22') for combining the altered separate beams of electromagnetic energy/light of the primary first resolved beam of electromagnetic energy/light into a first single collinear beam of electromagnetic energy/light without substantially changing the altered selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of the plurality of portions of each of the separate beams of electromagnetic energy/light, and (ii) means (21'', 22'') for combining the substantially collimated altered separate beams of electromagnetic energy/light of the primary second resolved beam of electromagnetic energy/light into a second single collinear beam of electromagnetic energy/light without substantially changing the altered selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of the plurality of portions of each of the separate beams of electromagnetic energy;

(g) (i) means (18) for resolving from the first single collinear beam of electromagnetic energy a first resolved beam of electromagnetic energy/light having substantially a first selected predetermined orientation of a chosen component of electromagnetic wave field vectors and a second resolved beam of electromagnetic energy/light having substantially a second selected predetermined orientation of a chosen component of electromagnetic wave field vectors, and (ii) means (18) for resolving from the second single collinear beam of electromagnetic energy/light first resolved beam of electromagnetic energy/light having substantially a first selected predetermined orientation of a chosen component of electromagnetic wave field vectors and a

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second resolved beam of electromagnetic energy/light having substantially a second selected predetermined orientation of a chosen component of electromagnetic wave field vectors; (h) means (18) for merging one of the resolved beams of electromagnetic energy/light from the first single collinear beam of electromagnetic energy/light with one of the other resolved beams of electromagnetic energy/light from the collimated single collinear beam of electromagnetic energy/light into a third single collinear beam of electromagnetic energy/light, wherein the means for merging of the resolved beams includes means for merging of the resolved beams in which the plurality of portions of one of the merged beams has a different selected predetermined orientation (S) of a chosen component of electromagnetic wave field vectors from that of the plurality of portions of the other merged beam (P); (i) means (11) for projecting said third single collinear beam of electromagnetic energy/light onto a projection means/screen (6), said third single collinear beam of light being viewable as a three-dimensional image (with 9, see abstract). Muro et al. discloses the claimed invention except for providing a means for substantially collimating the primary beam of electromagnetic energy/light which then remains collimated throughout the processes of resolving, separating, altering, combining, resolving and merging the beams. Konno et al. teach a light illumination device (fig. 5) which produces a primary beam (at M) which is collimated and has a substantially uniform flux intensity substantially across the initial beam of light (column 5, lines 43-52). It would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the light source of Muro et al. with that of Konno et al. to have a collimated and more uniform intensity light beam and therefore provide a more consistent image. Therefore the beam would be collimated

throughout the processes of resolving, separating, altering, combining, resolving and merging. The method of utilizing the structure of the claim is inherent therein.

Regarding 178, 192, 207 and 220, Muro et al. further disclose wherein the means (13) for resolving the primary beam includes means (13) for resolving the primary beam into primary first and second resolved beams in which the first selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of the first resolved beam has the selected predetermined orientation of the chosen component of the electromagnetic wave field vectors different from the second selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of the second resolved beam (S versus P).

Regarding claims 181-182, 187-188, 195-196, 201-202, 210-211, 216, 218, 223-224 and 229-230, Muro et al. further disclose wherein the means (18) for merging the resolved beams includes means (18) for merging the resolved beams in which each merged beam has its plurality of portions parallel and partially coincident (in so far as any portion is coincident) or simultaneous to the plurality of portions of the other merged beam (figs. 3 and 4).

Claims 180, 186, 194, 200, 209, 215, 222 and 228 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muro et al. in view of Konno et al. as applied to claims 176, 190, 205 and 217 above and further in view of Craig, US 4,740,836.

Muro et al. in view of Konno et al. as applied to claims 176, 190, 205 and 217 above disclose the claimed invention except where the each of the merged beams has its plurality of portions noncoincident to the plurality of portions of the other merged beam. Craig teaches systems for viewing images in which two images are noncoincident to provide stereoscopic or three-

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dimensional views to the user (column 1, lines 16-40 and figs. 1 and 4). ^{It} ~~It~~ would have been obvious to one of ordinary skill in the art at the time the invention was made to make the images of Muro et al. in view of Konno et al. noncoincident to provide a three-dimensional projector which will work with many different stereoscopic imaging techniques like those suggested by Craig.

Claims 177, 191, 206 and 219 are rejected under 35 U.S.C. 103(a) as being unpatentable Muro et al. in view of Konno et al. as applied to claims 176, 190, 205 and 217 above over Muro et al. in view of Konno et al. as applied to claims 176, 190, 205 and 217 above and further in view of Baur et al. US 5, 115,305.

Muro in combination with Konno disclose the claimed invention except for wherein the means for resolving the substantially collimated primary beam includes means for resolving the substantially collimated primary beam into substantially collimated primary first and second resolved beams in which the first selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of the first resolved beam has the same selected predetermined orientation of the chosen component of the electromagnetic wave field vectors as that of the second selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of the second resolved beam. Baur et al. teaches in fig. 1, system and method of producing a modulated beam of electromagnetic energy/light which includes resolving, rotating, separating, altering, combining and resolving a beam of electromagnetic energy/light. More specifically Baur et al. teach means (33) for rotating the second selected predetermined orientation (P) of a chosen component of the electromagnetic

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wave field vectors of the primary second resolved beam (24) of electromagnetic energy/light to be substantially the same (S) as the first selected predetermined orientation (S) of a chosen component of the electromagnetic wave field vectors of the primary first resolved beam (26) of electromagnetic energy (column 9, lines 21-28), as well as a second means (45) to be able to recombine the altered beams with a polarized beam splitter (see column 8, lines 2-10). It would have been obvious to one of ordinary skill in the art at the time the invention was made to add the means to rotate polarization of Baur et al. to the system of Muro et al. in view of Konno et al. to be able to use components with like polarizers thus reducing the number of different types of parts in the system.

Response to Arguments

Applicant's arguments filed April 25, 2006 have been fully considered but they are not persuasive.

Applicant argues that the prior art fails to teach or suggest the newly added limitations regarding a beam stop. As stated in the rejection above the beamsplitter act as beam stops capable of blocking errant light from passing through the aperture of the beamsplitter.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua L. Pritchett whose telephone number is 571-272-2318. The examiner can normally be reached on Monday - Friday 7:00 - 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew A. Dunn can be reached on 571-272-2312. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Joshua L Pritchett
Examiner
Art Unit 2872

JLP 


DREW A. DUNN
SUPERVISORY PATENT EXAMINER